

WHAT IS CLAIMED IS:

Sub → ① A picket fence and rail mounting system comprising:

at least an upper and a lower, elongate rail in spaced relation to one another, each rail having a hollow interior defining a substantially I-shaped cross-section having a first surface, a second surface, at least a first slot adjacent the first surface, at least a second slot adjacent the second surface, a plurality of spaced openings in the first surface, and a channel in the second surface, the channel having a width that is at least as wide as the width of each opening;

at least one elongate picket having a first end and a second end, at least a first notch or indentation in a picket face, and a cross-sectional shape substantially the same as, but of slightly smaller dimension than the openings in the first surface of the rails; and

an elongate retaining rod disposed within at least one rail, wherein each rod cooperates with a notch or indentation on each picket to secure the picket to the rail; and wherein

each rod is alternately disposable within a first or second slot of the corresponding rail, and each rail may be alternately oriented such that the first surface resides above the second surface and vice versa.

✓ 2. The system of Claim 1, wherein each notch comprises a substantially V-shaped upper extent and a substantially V-shaped lower extent such that the vertices of each V are oppositely disposed and define a minimum width of the notch.

3. The system of Claim 1, wherein the first notch or indentation is located near the first end and the picket further comprises a second notch or indentation near the second end.

4. The system of Claim 3, wherein the notches or indentations on each picket are in one picket face.

5. The system of Claim 3, wherein the notches or indentations on each picket are in oppositely facing picket faces.

6. The system of Claim 3, wherein a distance between the first picket end and first notch or indentation is shorter than a distance between the second picket end and second notch or indentation.

7. The system of Claim 6, wherein with both the upper and lower rails oriented such that the first surface of each faces upward, and each picket oriented such that the first end of each faces upward and the second end of each faces downward, and a retaining rod resides within a first rail slot in at least the upper rail such that the rod cooperates with the first notch or indentation on each picket, the first end of each picket extends upwardly a distance  $x$  from the first surface of the upper rail and the second end of each picket extends downwardly a distance  $y$  from the second surface of the lower rail, wherein  $y$  is greater than  $x$ .

8. The system of Claim 6, wherein with both the upper and lower rails oriented such that the first surface of each faces upward, and each picket oriented such that the second end of each faces upward and the first end of each faces downward, and a retaining rod resides within a first rail slot in at least the upper rail such that the rod cooperates with the second notch or indentation on each picket, the second end of each picket extends upwardly a distance  $y$  from the first surface of the upper rail and the first end of each picket extends downwardly a distance  $x$  from the second surface of the lower rail, wherein  $y$  is greater than  $x$ .

9. The system of Claim 6, wherein with both the upper and lower rails oriented such that the first surface of each faces upward, and a first set of pickets oriented such that the first end of each faces upward and the second end of each faces downward, and a second set of pickets oriented such that the second end of each faces upward and the first end of each faces downward, and a retaining rod resides within a first rail slot in at least the upper rail such that the rod cooperates with the first notch or indentation of each picket in the first set and the second notch or indentation of each picket in the second set, the first end of each picket in the first set extends upwardly a distance  $x$  from the first surface of the upper rail and the second end of each picket in the first set extends downwardly a distance  $y$  from the second surface of the lower rail, and the second end of each picket in the second set extends upwardly a distance  $y$  from the first surface of the upper rail and the first end of each picket in the second set extends downwardly a distance  $x$  from the second surface of the lower rail, wherein  $y$  is greater than  $x$ .

10. The system of Claim 7, 8 or 9, further comprising decorative finials, wherein each finial comprises a lower portion configured to slidably engage one end of a picket, and an upper portion configured to provide an aesthetic design.

11. The system of Claim 7, 8 or 9, further comprising decorative inserts, wherein each insert comprises a mounting portion configured to slidably engage the lower slots of at least the upper or lower rail, and an decorative portion configured to provide an aesthetic design.

12. The system of Claim 6, wherein with the upper rail oriented such that its first surface faces downward, and the lower rail oriented such that its first surface faces upward, and each picket oriented such that the first end of each faces upward and the second end of each faces downward, and a retaining rod resides within a first rail slot in at least the upper rail such that the rod cooperates with the first notch or indentation on each picket, the first end of each picket is flush with or beneath the second surface of the upper rail and the second end of each picket extends downwardly a distance y from the second surface of the lower rail.

13. The system of Claim 12, further comprising an elongate cap having a substantially C-shaped cross-section and configured to slidably engage the second surface of the upper rail and provide a continuous flat cover therefor.

14. The system of Claim 1, wherein an exterior surface of each rail defines a substantially I-shaped cross-section.

15. The system of Claim 1, wherein the pickets are tubular.

16. The system of Claim 1, wherein the rod is cylindrical.

17. The system of Claim 1, wherein the rod has an oval cross-section.

18. The system of Claim 1, wherein the rod has a flattened-oval cross-section.

19. The system of Claim 1, wherein the rod has a square cross-section.

20. The system of Claim 1, wherein the rod has an L-shaped cross-section.

21. A picket fence and rail mounting system comprising:

at least an upper and a lower, elongate rail in spaced relation to one another, each rail having a hollow interior defining a substantially I-shaped cross-section having a first surface, a second surface, at least a first slot adjacent the first surface, at least a second slot adjacent the second surface, a plurality of

spaced openings in the first surface, and a channel in the second surface, the channel having a width that is at least as wide as the width of each opening;

at least one elongate picket having a first end and a second end, at least a first hole in a picket face, and a cross-sectional shape substantially the same as, but of slightly smaller dimension than the openings in the first surface of the rails; and

fastening members cooperating with at least one of the holes to secure the picket to the rail, wherein

each rail may be alternately oriented such that the first surface faces upward and such that the first surface faces downward.

22. The system of Claim 21, wherein the fastening members comprise spring clips.

23. The system of Claim 22, wherein the spring clips are alternately insertable within a first or second slot of the corresponding rail.

24. The system of Claim 21, wherein the fastening members comprise threaded screws.

25. A picket fence and rail mounting system comprising:

an elongate, substantially hollow rail having a top wall with a plurality of spaced openings, and a bottom wall with an elongate channel having a width that is at least as wide as the width of each opening, the rail having an interior elongate slot adjacent the top wall;

at least one elongate picket with a notch or indentation in a side of the picket, and a cross-sectional shape sized to fit snugly within one of the openings and the channel; and

an elongate retaining rod disposed within the slot and the notch or indentation to secure the picket to the rail.

26. The system of claim 25, wherein the rail may be alternately oriented such that the top wall faces upward or the channel faces upward.

27. The system of Claim 25, wherein the picket notch or indentation is a first picket notch or indentation located near a first picket end, and the picket further comprises a second notch or indentation near a second picket end.

28. The system of Claim 27, wherein a distance between the first picket end and first notch or indentation is shorter than a distance between the second picket end and second notch or indentation.

W  
↓  
on  
29. A picket fence rail comprising:

5 an elongate rail having a hollow interior defining a substantially I-shaped cross-section having a top wall, a bottom wall spaced from the top wall, a top slot adjacent the top wall, a bottom slot adjacent the bottom wall, a plurality of spaced openings in the top wall, and an elongate channel in the bottom wall, the channel having a width that is at least as wide as the width of each opening so that an elongate picket may extend through each opening and the channel, the top slot being sized to receive a retaining member to cooperate with a notch or indentation or hole in the picket to secure the picket to the rail.

10 30. The rail of Claim 29, wherein top slot is sized to receive an elongate retaining rod.

15 31. A method of making a picket fence, comprising the steps of:

making an elongate generally hollow rail having a top wall and a bottom wall spaced from the top wall, and a pair of side walls;

forming a series of spaced openings in the top wall;

forming an open channel in the bottom wall, the channel sized to permit pickets to extend therethrough;

forming a slot in a rail sidewall adjacent the top wall;

providing a series of pickets to extend snugly through the openings and extend through the channel;

forming a first notch or indentation in a side wall of each of the pickets;

25 and

providing a retaining rod sized to extend through the rail slot and the picket notches or indentations to lock the pickets to the rail.

32. The method of claim 31, wherein said picket notch or indentation forming step comprises spacing the picket notch or indentation from a first end of the picket at a location such that with the rail oriented so that the top wall faces upward, and the retaining rod extends through the slot, the rail top wall is spaced below the first end of

the picket, and with the rail inverted so that the top wall faces downward, and the retaining rod extends through the slot, the rail bottom wall is spaced above or substantially flush with the first end of the pickets.

5 33. The method of claim 32, further comprising the step of forming a second notch or indentation in the same or an oppositely facing side wall of each of the pickets, wherein the second notch or indentation is spaced farther from a second end of the picket than the first notch or indentation is spaced from the first end.

10 34. The method of claim 32, further comprising the step of providing an elongate cap to fit onto the bottom wall of the rail when the rail is inverted so that the bottom wall is facing upward and the retaining rod is extending through the slot so that the bottom wall is spaced above or substantially flush with the first end of the pickets, whereby the cap can cover the channel and the first end of the pickets.

15 35. A method of installing the picket fence of claim 34, comprising the steps of:  
orienting the rail such that the top wall faces up;  
locating the slot laterally adjacent the notch or indentation; and  
inserting the retaining rod within the slot to engage the notch or  
indentation; or  
orienting the rail such that the bottom wall faces up;  
locating the slot laterally adjacent the notch or indentation;  
20 inserting the retaining rod within the slot to engage the notch or  
indentation; and  
covering the channel with the cap.

25 36. The method of claim 35, further comprising the step of securing a finial to at least one picket when the top wall faces up.

37. The method of claim 35, further comprising the step of securing a decorative insert to the rail channel so that a decorative portion of the insert depends from the rail between adjacent pickets.

add  
A1